PTO/SB/05 (08/03)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION **TRANSMITTAL**

| Attorney Docket No. | | 250907-1230 | · |
|---------------------|--|---------------------------------------|------------------|
| First In | ventor | Wu et al. | 0 |
| Title | BRANCH METRIC CON OPERATION IN VITERS | MPUTATION AND ADD-COME BI DECODERS | PARE-SELECTEL SO |

| (Only for new nonprovisional applications under 37 CFR 1.53(b)) | | | Express Mail Label No. | | | | EL993862 | | <u> </u> | | |
|--|----------------------------------|--|------------------------|----------|---|-----------|---|---------------------------------|--|-----------------------------|----------------------------------|
| APPLICATION ELEMENTS See MPEP Chapter 600 concerning utility patent application contents | | | tents | ΑĹ | DDR | ESS | | Comn P.O. E Atexa | itop Patent Ap nissioner for P 3ox 1450 ndria, VA 223 | atents 13-1450 | 19270 |
| | nsmittal Form (e.g | ., PTO/SB/17) licate for fee processing) | | | 7. | | | M or CD-R in m (Appendix) | | rge table o | Computer |
| 2. X Applicant claims small entity status. See CFR 1.27 | | | | | 8. Nucleotide and/or Amino Acid Sequence Subm (if applicable, all necessary) | | | | Submissio | n | |
| " | ed arrangement se | · · · · · · · · · · · · · · · · · · · | 39 | J | | а. | | Comput | er Readable | Copy (CRF |) |
| - CC - SS - RC - BB - BB | | | | b. c. | | i. | CD-ROM or C | CD-R (2 cop | oies); or above copies | | |
| | Detailed Description Claim(s) | on . | | ſ | ACCOMPANYING APPLICATION PARTS | | | | | | ARTS |
| - A | bstract of the Dis | closure | | | 9. | X | Assigr | ment Papers | (cover sheet | & Docume | nts(s)) |
| 4. X Drawing | (s) (35 USC 113) | [Total Sheets | 6 |]] | 10. | | | R 3.73(b) Sta there is an as | | | Power of Attorney |
| 5. Oath or Declarati | ion | [Total Pages | 2 |]] | 11. | | Englis | h Translation | Document (if | applicable, |) |
| a. X | Newly Executed (d | original or copy) | | | 12. | | | ation Disclosu nent (IDS)/PT | | | Copies of IDS Citations |
| | | application (37 CFR §1.63(d)) | | Ì | 13. | | Prelim | inary Amendr | ment | | |
| · · · · · · | ,or commoditions | | / | | 14. | X | Return Receipt Postcard (MPEP 503) (Should be specifically itemized) | | | | |
| i. | | ION OF INVENTOR(S) statement attached deleting i | nventor(s) | | 15. | | | ed Copy of Pr | | ent(s) | |
| | named | in the prior application, CFR 1.63(d)(2) and 1.33(b). | | | 16. | | Nonpu | ublication Requant must atta | uest under 3 ch form PTO | 5 U.S.C. 12 /SB/35 or it | ?2(b)(2)(B)(i). s equivalent. |
| 6. Applicat | tion Data Sheet. | See 37 CFR 1.76 | | | 17. | | Other | | | | |
| Assignee | | | | | | LI | | | · · | | |
| Name and Addi (if applicable) | | | | | | | | | | | |
| 18. If a CONTINUII or in an Application | NG APPLICAT Data Sheet un | ION, check appropriate bo der 37 CFR 1.76: | ox, and su | oply | the re | quisite i | inform | ation below | and in a pi | reliminary | amendment, |
| ☐ Continuatio | | | Continua | tion- | -in-pa | art (CIP | ?) | - | applicatio | n No: | <i>1</i> . |
| Prior application information: Examiner Group / Art Unit: For CONTINUATION OR DIVISIONAL APPS only: the entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. This incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. | | | | | | | | | | | |
| | | 18. CORI | RESPON | DEN | ICE A | ADDRE | SS | | | | |
| Customer Number or Bar Code Label (Insert Customer No. or Attach bar code label here) Correspondence address below | | | | | | | | | | | |
| NAME | Daniel R. M | | Rislav | | | | | | | | |
| ADDRESS | | | | | | | | | | | |
| CITY | Suite 1750 Atlanta | STATE | Georg | ia | | _ | | | ZIP CODE | 30339- | 5948 |
| COUNTRY | U.S.A. | TELEPHONE | | | 500 | | | | FAX | 770-95 | 1-0933 |
| Name (Print/Type) Daniel R. McClure | | | | | | Regi | istratio | n No. (Atto | | | |
| Signature Dearl 1 | | | | <u> </u> | 7 | | | | Date | Dec | 1, 2003 |

| ED SEE TRANSMITTAL | Co | Complete If Known | | | | |
|---|----------------------|-------------------|--|--|--|--|
| E E FEE TRANSMITTAL | Application Number | Unassigned | | | | |
| FEE TRANSMITTAL for FY 2004 Effective 10/01/2003. Patent fees are subject to annual revisions. | Filing Date | December 1, 2003 | | | | |
| 10111 2004 | First Named Inventor | Wu et al. | | | | |
| Effective 10/01/2003. Patent fees are subject to annual revisions. | Examiner Name | Unassigned | | | | |
| Applicant claims small entity status. See 37 CFR 1.27 | Group / Art Unit | Unassigned | | | | |
| TOTAL AMOUNT OF PAYMENT (\$) 425.00 | Attorney Docket No. | 250907-1230 | | | | |

| METI | FEES CALCULATION (continued) | | | | | | | | | |
|--|--|---|-------------|---------------------------|----------------------|----------------|--|--|----------|--|
| METHOD OF PAYMENT (check all that apply) Check Credit Card Money Other None | | | | | 3. ADDITIONAL FEES | | | | | |
| ☐ Check | Credit Card | _] Money | 7 NOUS | Large Entity Small Entity | | | ntity | | | |
| Deposit | | 5.00. | | Fee Code | Fee | Fee Code | Fee (\$) | Fee Description | Fee Paid | |
| Account | | | | 1051 | (\$) 130 | 2051 | 65 | Surcharge-late filing fee or oath | | |
| Deposit Account | | | | 1052 | 50 | 2052 | 25 | Surcharge-late provisional filing fee or cover sheet | | |
| Number 20-0778 | | | | 1053 | 130 | 1053 | 130 | Non-English specification | | |
| Deposit Account Name Thomas, Kayden, Horstemeyer Risley, L.L.P. | | | 1812 | 2,520 | 1812 | 2,520 | For filing a request for ex parte reexamination | | | |
| | | | 1804 | 920* 1,840* | 1804 1805 | 920* 1,840* | Requesting publication of SIR prior to Examiner action Requesting publication of | | | |
| | | to: (check all that apply) Credit any overpayme | ents | 1805 1251 | 110 | 2251 | • | SIR after Examiner action Extension for reply within first | | |
| Charge any a | indicated below dditional fee(s) duri | ng the pendency of this applicat | tion | 1252 | 420 | 2252 | 210 | month Extension for reply within | | |
| Charge fee(s) | indicated below, e | xcept for the filing fee to the al | bove- | li | | | | second month | | |
| identified dep | osit account | | | 1253 | 950 | 2253 | 4/5 | Extension for reply within third month | | |
| | | LCULATION | | 1254 | 1,480 | 2254 | 740 | Extension for reply within fourth month | | |
| BASIC FILIN Large Entity | Small Entity | For | e Paid | 1255 | 2,010 | 2255 | 1,005 | Extension for reply within fifth month | | |
| Fee Fee | Fee Fee Code (\$) | Fee Description | eralu | 1401 | 330 | 2401 | 165 | Notice of Appeal | | |
| Code (\$) 1001 770 | 2001 385 | Utility Filing Fee 385 | 5 | 1402 | 330 | 2402 | 165 | Filing a brief in support of an appeal | | |
| 1002 340 | 2002 170 | Design Filing Fee | | 1403 | 290 | 2403 | 145 | Request for oral hearing | | |
| 1002 540 | 2002 170 | Plant Filing Fee | | 1451 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding | | |
| 1003 300 | 2004 385 | Reissue Filing Fee | | 1452 | 110 | 2452 | 55 | Petition to revive- unavoidable | | |
| 1005 160 | 2005 80 | Provisional Filing Fee | | 1453 | 1,330 | 2453 | 655 | - | | |
| | | SUBTOTAL (1) (\$)385 | | 1501 | 1,330 | 2501 | 665 | | | |
| 2 EVEDACIA | IM FEES FOR LIT | ILITY AND REISSUE | | 1502 | 480 | 2502 | 240 | Design issue fee | | |
| Z. EXTRA GEA | | Extra Fee | Fee | 1503 | 640 | 2503 | 320 | Plant issue fee | | |
| | | Claims From Below | Paid | 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | | |
| Total Claims | 20 - 20**= | 0 X 9.00 = 0 | | 1807 | 50 | 1807 | 50 | Processing fee for provisional application | | |
| Independent Claims | 3 - 3** = | | | 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | | |
| Multiple 0 145.00 = 0 | | | | | 40 | 8021 | 40 | assignment per property | 40 | |
| Large Entity Fee Fee | Small Entity Fee Fee | Fee Description | | 1809 | 770 | 2809 | 385 | (times number of properties) Filing a submission after final rejection (37 CFR § 1.129(a)) | | |
| Code (\$) 1202 18 | Code (\$) 2202 9 | Claims in excess of 20 | | 1810 | 770 | 2810 | 385 | | | |
| 1202 18 | 2202 9 | Independent claims in exces | s of 3 | 1801 | 770 | 2801 | 385 | Request for Continued | | |
| 1203 290 | 2203 145 | Multiple dependent claim, if r | not paid | 1802 | 900 | 1802 | 900 | | | |
| 1204 86 | 2204 43 | **Reissue independent claim original patent | is over | 1 | | 1 | | of a design application | | |
| 1205 18 | 2205 9 | **Reissue claims in excess of and over original patent | of 20 | Other f | fee (specit | fy) | | SUBTOTAL (3) (\$) | 40 | |
| , | | SUBTOTAL (2) (\$)0 | | II. | | | | SUBTOTAL (3) (\$) | 40 | |
| | | | | 1 | | | | | | |
| | | | | | | | | • | | |
| **or number previously paid, if greater; For Reissues, see *Reduced by Basic Filing Fee Paid above | | | | | | | | | | |
| SUBMITTED BY | | | | | Complete (if applica | | | | | |
| Typed or Printed Na | R. McClure | Reg | istration N | lo. 38,9 6 | 52 | Number | 933-9500 | | | |
| Signature | 1 | 10/ | 7 | // | | | | Date | | |
| Darl (12-1-03) | | | | | | | | | | |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Wu et al.

For:

BRANCH METRIC COMPUTATION AND ADD-COMPARE-SELECT

OPERATION IN VITERBI DECODERS

CERTIFICATE OF EXPRESS MAIL

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Enclosed for filing in the above case are the following documents:

Return Postcard
Utility Patent Application Transmittal Page
Fee Transmittal Page
Utility Patent Application Consisting Of:
24 Pages of Specification
14 Pages of Claims (Claims 1-20)
1 Page of Abstract
6 Pages of Formal Drawings (Figs. 1-5)
Declaration (executed)
Credit Card Authorization Form (Amount: \$425.00)

Further, the Commissioner is authorized to charge Deposit Account No. 20-0778 for any additional fees required. The Commissioner is requested to credit any excess fee paid to Deposit Account No. 20-0778.

Assignment/Recordation Form Cover Sheet

Respectfully submitted,

Daniel R. McClure, Reg. No. 38,962

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.

100 Galleria Parkway, N.W.

Suite 1750

Atlanta, Georgia 30339-5948

Our Docket No: 250907-1230

I hereby certify that all correspondence listed above are being deposited for delivery to the above addressee, with the United States Postal Service "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 CFR §1.10 on the date indicated below:

The envelope has been given U.S. Postal Service "Express Mail Post Office To

Addressee" Package # EL993862141US.

Date: December 1, 2003

Hui Chin Barnhill